AMENDMENT TO THE CLAIMS

1. (Currently Amended) A virtual cell management method using sectors in an orthogonal frequency division multiplexing mobile communication system including a cell structure having cells each comprised of a plurality of sectors, the cells performing data communication with mobile terminals within a corresponding cell through at least one subchannel having orthogonality, the method comprising the steps of:

forming a virtual cell with a particular one of sectors constituting a particular cell and sectors of two other cells neighboring the particular sector;

transmitting, by three base stations forming the virtual cell, an interference measurement value and a channel ~~parameter estimation~~ estimate value from a mobile terminal located in the virtual cell to a base station controller that controls the virtual cell, thereby allocating at least one wireless resource in the virtual cell;

transmitting the at least one allocated wireless resource to the three base stations so that the base stations allocate a same subchannel to each mobile terminal located in the virtual cell; and

transmitting same data over the allocated subchannel.

2. (Original) The virtual cell management method of claim 1, wherein the subchannel is dynamically allocated within an entire frequency bandwidth that is usable in the virtual cell.

3. (Original) The virtual cell management method of claim 2, wherein the entire frequency bandwidth is reused in another virtual cell neighboring the virtual cell.

4. (Currently Amended) The virtual cell management method of claim 1, further comprising the step of receiving the same data transmitted from the base stations over the allocated subchannel~~, through macro transmit diversity~~.

5. (Original) The virtual cell management method of claim 1, wherein the at least one wireless resource includes at least one of frequency bandwidth, initial bits, subcarriers, and refined bits.

6. (Currently Amended) An apparatus for allocating resources of a virtual cell formed with a particular sector forming a particular cell and sectors of two other cells neighboring the particular sector, in an orthogonal frequency division multiplexing mobile communication system having a cell structure formed by cells each comprised of a plurality of sectors, the cells performing data communication with mobile terminals within a corresponding cell through at least one subchannel having orthogonality, the apparatus comprising:

mobile terminals, located in the virtual cell, for transmitting, to base stations, interference information measured during a power off of the base stations and channel estimate information estimated using pilot signals from the base stations, and performing demodulation with at least one subchannel based on access information from the base stations;

the base stations for transmitting the interference information and the channel estimate information from the mobile terminals to a base station controller that controls the virtual cell, receiving wireless allocation information from the base station controller, transmitting the access information to the mobile terminals, allocating a same subchannel to each mobile terminal located in the virtual cell, and then transmitting same data over the allocated subchannel; and

a resource allocator for allocating wireless resources in the virtual cell based on the interference information and the channel estimate information transmitted through the base station controller, and transmitting the allocated wireless allocation information to the base stations through the base station controller.

7. (Original) The apparatus of claim 6, wherein the subchannel is dynamically allocated within an entire frequency bandwidth that is usable in the virtual cell.

8. (Original) The apparatus of claim 7, wherein the entire frequency bandwidth is reused in another virtual cell neighboring the virtual cell.

9. (Cancelled)

10. (Original) The apparatus of claim 6, wherein the wireless resources include at least one of frequency bandwidth, initial bits, subcarriers and refined bits.